Moon Phases I:

Name the five moon phases below.



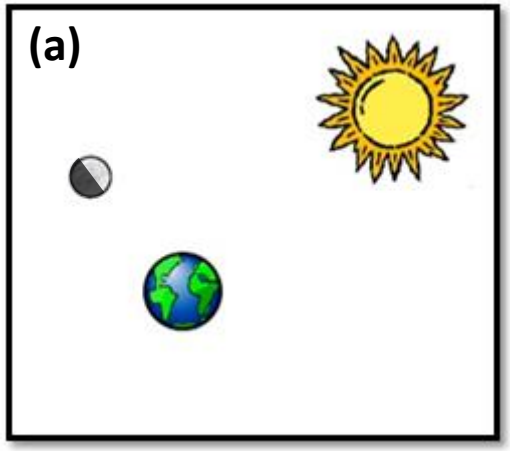


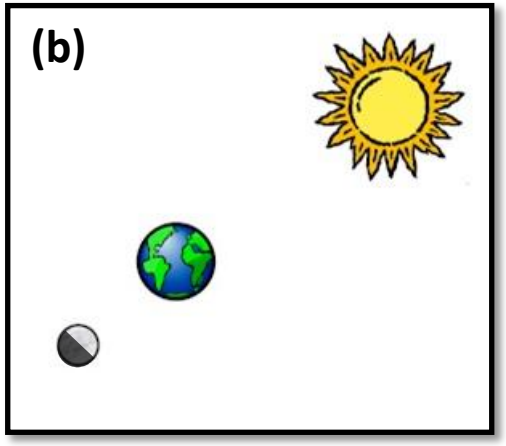
Answer to Previous Question:

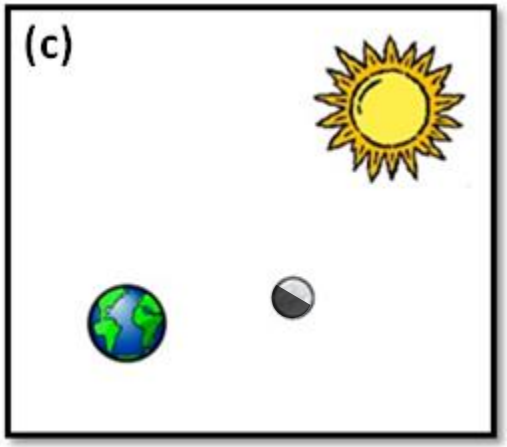
1. The moon orbits Earth once every 29.5 days.
2. ~~The moon rotates on its axis once every~~ The moon doesn't rotate, it always has the same side facing Earth.
3. The Earth orbits the sun once every 365.25 days.
4. The Earth rotates on its axis once every 24 hours .
5. ~~The Sun rotates on its axis once every~~ The sun has no notable rotation.

Moon Phases II:

Match the moon phases with the diagrams below.







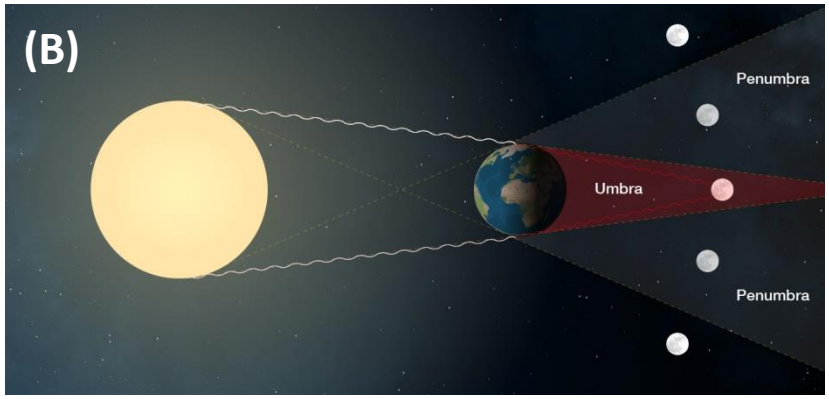
Answer to Previous Question:
Waxing Crescent, Full Moon, Waning Crescent, Waning Gibbous, Waxing Quarter

Eclipses:

For the following images, label them as a solar eclipse, a lunar eclipse, or neither.

(A)

(B)



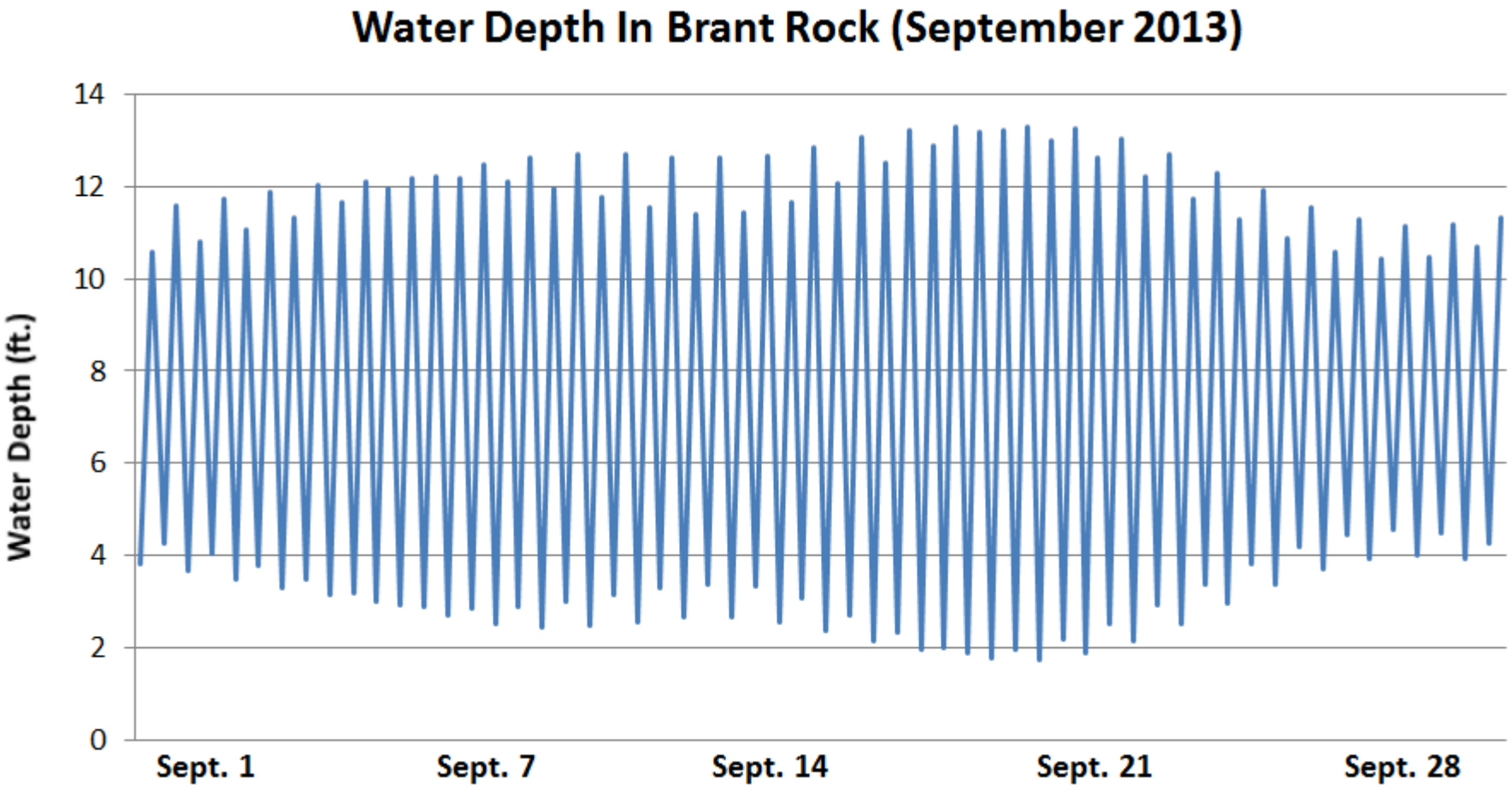
(C)

(D)

Answer to Previous Question:
A = Waxing Quarter
B = Full Moon
C = Waning Crescent

Spring and Neap Tides:

1. On what date in September 2013 do you think there was a full moon?
2. On what date do you think there was a waning quarter moon?
3. On what date do you think there was a waxing quarter?



Answer to Previous Question:
A = Lunar Eclipse B = Lunar Eclipse C = Solar Eclipse D = Solar Eclipse

Gravity:

1. Which of the planets below would have the strongest gravity?
2. Which of the planets below would have the weakest gravity?
3. Which would be the most comparable to Earth's 9.8 m/s per second?

Photo	Planet	Relative Size	Average Distance from Sun (AU)	Average Equatorial Radius (km)	Mass (Earth = 1)	Average Density (g/cm^3)	Orbital Period	Rotation Period
	Mercury	·	0.387	2440	0.055	5.43	87.9 days	58.6 days
	Venus	•	0.723	6051	0.82	5.24	225 days	243 days
	Earth	•	1.00	6378	1.00	5.52	1.00 year	23.93 hours
	Mars	·	1.52	3397	0.11	3.93	1.88 years	24.6 hours
	Jupiter		5.20	71,492	318	1.33	11.9 years	9.93 hours
	Saturn		9.54	60,268	95.2	0.70	29.4 years	10.6 hours
	Uranus		19.2	25,559	14.5	1.32	83.8 years	17.2 hours
	Neptune		30.1	24,764	17.1	1.64		

Answer to Previous Question:
Full Moon = September 19th or 20th
Waning Quarter = September 27th (after full moon)
Waxing Quarter = September 13th (before full moon)

Planet Earth:

Match the effects on the left with the causes on the right…

1. Winter and Summer	**(a) The moon's gravity.**
2. Night and Day	**(b) Reflected light from the sun.**
3. Spring Tides	**(c) The moon's gravity pulling in the same direction as the sun's.**
4. Moonlight	**(d) Earth spinning.**
5. High and Low Tides	**(e) Earth's tilt.**

Answer to Previous Question:

Strongest = Jupiter Weakest = Mercury Comparable to Earth = Venus

Vocabulary:

Match the vocabulary on the left with the definitions on the right…

(a) Eclipse	(u) a shape that looks like a banana
(b) Gravity	(v) shrinking
(c) Gibbous	(w) the force that pulls objects together *(with strength proportional to object's mass)*
(d) Crescent	(x) growing
(e) Waxing	(y) when one object in space obscures the view of another
(f) Waning	(z) a shape that looks two-thirds of a circle

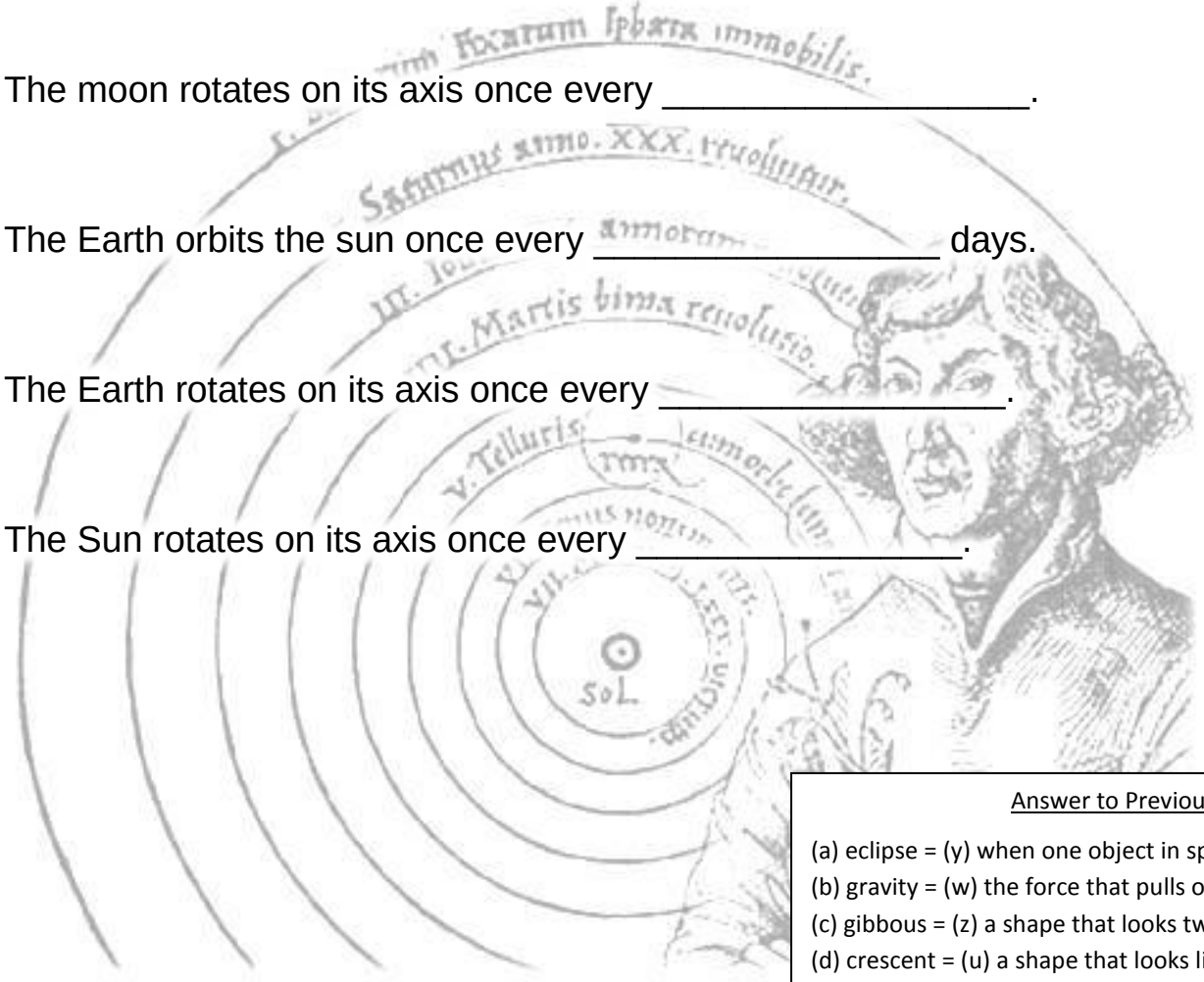
Answer to Previous Question:

1. Winter and Summer	(e) Earth's tilt.
2. Night and Day	(d) Earth spinning
3. Spring Tides	(c) The moon's gravity pulling in the same direction as the sun's.
4. Moonlight	(b) Reflected light from the sun.
5. High and Low Tides	(a) The moon's gravity.

Sun, Earth, Moon:

Fill in the blanks below with the correct answer…

1. The moon orbits Earth once every _____ days.
2. The moon rotates on its axis once every _____.
3. The Earth orbits the sun once every _____ days.
4. The Earth rotates on its axis once every _____.
5. The Sun rotates on its axis once every _____.



Answer to Previous Question:

(a) eclipse = (y) when one object in space obscures view of another
(b) gravity = (w) the force that pulls objects together
(c) gibbous = (z) a shape that looks two-thirds of a circle
(d) crescent = (u) a shape that looks like a banana
(e) waxing = (x) growing
(f) waning =(v) shrinking